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CLAIMS:

What is claimed is:

1.   A computer program product in a computer readable medium containing a routine for writing a dump element,
5   the routine comprising the steps of:

first instructions for checking a size of a current dump element against a threshold,

second instructions, if the size is greater than said threshold, for

10   formatting a first portion of the dump element which is the size of the threshold,

writing said first portion of the dump element,

setting the remaining portion of the dump element to be a new dump element and returning to the

15   checking step;

third instructions, if the size is less than or equal to said threshold, for

formatting the dump element,

writing said the dump element, and

20   returning to a calling routine.

2.   The computer program product of Claim 1, wherein said threshold is 64 kB.

3.   The computer program product of Claim 1, wherein said routine performs recursive calls.

4. The computer program product of Claim 1, further comprising, whenever the dump element or portion of the dump element are formatted and written, formatting and writing a header for the dump element.

5. A method for writing a dump element, the method comprising the steps of:

receiving parameters for the dump element including a first starting address and a first size parameter;

if said first size parameter is not greater than a given threshold, then

formatting said element,

writing said element, then returning to a calling routine,

if said first size parameter is greater than or equal to said given threshold, then

setting a second starting address equal to said first starting address plus said threshold,

setting a second size parameter equal to said first size parameter minus said threshold,

setting said first size parameter to said threshold,

calling said method recursively, and

after said calling step, setting said first size parameter to said second size parameter, setting said first starting address to said second starting address, and going to said receiving step.

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6.   The method of Claim 5, wherein said threshold is 64
        kB.

7.   The method of Claim 5, further comprising formatting
        and writing a header for said dump element.

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8. A computer system comprising:

a processor which is connected to receive input from at least a first device and to provide output through at least a second device, said processor being programmed to
5 invoke, at the time of a system error, a routine which performs the following steps:

receiving parameters for the dump element including a first starting address and a first size parameter;

10 if said first size parameter is not greater than a given threshold, then

formatting said element and a header describing said element,

writing said element and said header, then
15 returning to a calling routine,

else,

setting a second starting address equal to said first starting address plus said threshold,

setting a second size parameter equal to said
20 first size parameter minus said threshold,

setting said first size parameter to said threshold,

calling said routine recursively, and

after said calling step, setting said first size
25 parameter to said second size parameter, setting said first starting address to said second starting address, and going to said receiving step.

9. The computer system of Claim 8, wherein said
30 threshold is 64 kB.

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10. The computer system of Claim 8, wherein said routine writes data to nonvolatile memory.

11. The computer system of Claim 8, further comprising writing a header each time a dump element or a portion of
5   a dump element is written.

12. A computer system comprising:
     means to receive information regarding a scan dump element to be written;
     means to check the size of the scan dump element;
10   and
     means to write a given block of data which is of a given size or less;
     means to modify said information regarding the scan dump element;
15   wherein if the size of said scan dump element is not greater than said given size, said means to write is configured to write said scan dump element to nonvolatile memory, otherwise said means to write is configured to write a first portion of said scan dump element which is
20   of said given size to nonvolatile memory, said means to modify is configured to modify said information to indicate the remaining portion of said element as a new element and to performs said wherein step again.

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13. The computer system of Claim 13, wherein said given size is 64 kB.

14. The computer system of Claim 13, wherein said means to write is also configured to write a header for each
5   portion of an element which is written.